WHAT IS CLAIMED IS:

1. An intruding-object detection apparatus for detecting an object intruding into a field of view as an intruding object using a pair of images taken by a stereo camera, the pair of images being a reference image and a comparison image, the apparatus comprising:

means for obtaining a matching point for the same subject between the reference image and the comparison image and, for storing the obtained matching point; and

means for evaluating the difference between image information near an arbitrary position in the reference image and image information near a position, deviated from the arbitrary position by the stored matching point, in the comparison image and for outputting an area, where the difference is large, as an area indicating an intruding object.

2. The apparatus according to Claim 1, wherein the matching point is a parallax for the same subject between the reference image and the comparison image.

3. The apparatus according to Claim 1, wherein the matching point is obtained every pixel.

4. The apparatus according to Claim 1, wherein the matching point is obtained every block which has a predetermined size and a predetermined shape in the image.

5. The apparatus according to Claim 1, wherein the difference between the image information includes the absolute value of the difference between the brightnesses of the images.

6. The apparatus according to Claim 1, wherein the difference between the image information is evaluated every pixel.

7. The apparatus according to Claim 1, wherein the difference between the image information is evaluated every block which has a predetermined size and a predetermined shape in the image.

8. The apparatus according to Claim 1, wherein a process of storing the matching point is executed to the whole image only once before an intruding-object detection process.

9. The apparatus according to Claim 1, wherein a process of storing the matching point is sequentially

executed to a part of the image simultaneously with an intruding-object detection process to update stored data regarding the matching point at any time.